

**COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION
(9 VAC 5 CHAPTER 60)**

**REGULATORY ANALYSIS DOCUMENT FOR
PROPOSED REGULATION REVISION G97
CONCERNING**

HAZARDOUS POLLUTANTS

SECTIONS AFFECTED

Emission Standards for Hazardous Pollutants from Existing Sources, Article 3 (9 VAC 5-60-150 et seq.) of 9 VAC 5 Chapter 60

Emission Standards for Hazardous Pollutants from New and Modified Sources, Article 4 (9 VAC 5-60-250 et seq.) of 9 VAC 5 Chapter 60

STATEMENT OF PURPOSE

The purpose of the regulations is to require the owner to limit source emissions of hazardous pollutants to a level that will not produce ambient air concentrations that may cause or contribute to the endangerment of human health. Unlike most other regulations, these contain no definitive emission limits in the emission standards themselves. These regulations do, however, provide significant ambient air concentration guidelines as a mechanism for the board to require the owner, on a case-by-case basis, to reduce emissions after analysis and review by the agency. The proposal is being made to integrate the state hazardous pollutant program more logically with the federal Clean Air Act, according to a determination made pursuant to the review of existing regulations mandated by Executive Order 15(94).

STATEMENT OF LEGAL AUTHORITY

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling, and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses, and has not exceeded, its statutory authority to promulgate the proposed regulation amendments is attached.

STATEMENT OF STATUTORY MANDATES

The regulations are not mandated by federal or state law or regulation. The original regulations were adopted in order to implement the policy set forth in the Virginia Air Pollution Control Law, and the proposed replacement regulations serve the same purpose.

COMPARISON WITH STATUTORY MANDATES

Not applicable.

STATEMENT OF CONCLUSIONS AND NEED

The proposed regulations are essential to protect the health, safety, and welfare of Virginia's citizens. The reasoning for this conclusion is set forth below.

The current regulations are consistent with applicable state, statutory provisions, and judicial decisions. However, factors and circumstances (federal statutes, original intent, state air quality program and air pollution control methodology and technology) which supported the initial issuance of the regulations have changed to a degree that justifies the repeal of the current regulations and the promulgation of substitute regulations.

Rules 4-3 and 5-3 were promulgated in 1985 to protect public health by setting significant ambient air concentration guidelines for all existing facilities emitting hazardous air pollutants (HAPs). At the time, the Clean Air Act authorized EPA to promulgate health-based emission standards for HAPs. However, because of the lengthy decision-making process for this federal program, only a limited number of National Emissions Standards for Hazardous Air Pollutants (NESHAPs) were promulgated. For each standard, this decision-making process involved the determination of the critical level that triggered significant health effects as well as the determination of which industry categories contributed the highest emission levels of the HAP under review. Meanwhile, several significant chemical accidents occurred, including one in Virginia (the Kepone incident in Hopewell). These circumstances led Virginia's State Air Pollution Control Board and policy-making groups in many other states to develop state-specific answers to the public health problems of HAPs. The states realized that they needed a more expeditious process to assess and regulate HAPs than that used at the federal level. Many states, including Virginia, extrapolated occupational standards for use in the ambient air.

By the late 1980s, the federal government realized that its approach to the regulation of HAPs was not moving quickly enough. Instead of taking a health effects-based approach, therefore, the new 1990 Clean Air Act (the Act) addressed the problem through the establishment of control technology standards followed by a review to determine if those standards sufficiently reduced public health risk. This approach addressed the problem quickly; all the control technology standards will be established by 2000. Emission standards to establish maximum achievable control technology (MACT) are now being developed for source categories that emit the 188 HAPs listed by the federal government. Once these MACT standards are developed, the federal government will assess what risk to human health remains from sources subject to the MACT standards and will establish further standards for those source categories causing significant public health concerns.

Like other states with their own HAPs programs, Virginia must decide how to integrate its program with the federal program. Although the number of HAPs regulated at the federal level has increased under the Act, the state program remains essential to protect the health of the citizens of the Commonwealth. Depending on the pollutant, health risks even from a small exposure to a HAP can be high. In addition, public concern about HAPs has remained high for the past three decades. Data reported for certain industries under the requirements established by the Emergency Planning and Community Right to Know Act, or Title III of the Superfund

Amendments and Reauthorization Act of 1986 (SARA Title III) has heightened public awareness and concern about exposure to HAPs emissions in Virginia by alerting citizens to the quantity of HAP emissions released in the state. The data reported under this program indicates that Virginia has significant air emissions of SARA Title III chemicals. In 1992, for instance, Virginia was ranked 16th in the nation for total releases of these chemicals, 94% of which were into the air. On the other hand, Virginia has made significant strides since the reporting under this program began in 1987: Virginia's air releases dropped 57% between 1987 and 1993, although some of these reductions are attributable to reporting errors.

Virginia's HAP regulations should be amended to provide that the state program will not apply to sources subject to a federal MACT. The regulations should also be amended to limit applicability to the pollutants regulated under § 112 of the federal Clean Air Act as amended in 1990. These suggestions both implement Recommendation 22 of Governor Allen's Commission on Government Reform.

STATEMENT OF ESTIMATED IMPACT

1. Entities Affected

Stationary sources of hazardous pollutants.

2. Fiscal Impact

a. Costs to Affected Entities

For affected entities, the cost of compliance with the new regulations will initially be the same as the cost of compliance with the current regulations. The reason for this is that the current policy of the State Air Pollution Control Board is to focus on the federal hazardous pollutant list in its implementation of its HAPs rules. Over time, however, the cost of compliance will decrease as more federal MACT standards are promulgated, thereby eliminating sources from applicability.

b. Costs to Agency

The proposed regulations will not result in any cost to the Department of Environmental Quality beyond that currently in the budget.

c. Source of Agency Funds

The sources of department funds to enforce these regulations are the general fund and the grant money provided by the U.S. Environmental Protection Agency under Section 105 of the federal Clean Air Act.

d. Benefits

The proposed regulations will benefit the Commonwealth in two primary ways: the regulated community will be assured that the federal and state programs will not

overlap, and the public will be assured that the state program will provide adequate protection for public health until the federal program is fully implemented.

e. Small Business Impact

The impact upon facilities that meet the definition of small business provided in § 9-199 of the Code of Virginia is addressed in paragraph 2a above.

STATEMENT OF PROCESS FOR CONSIDERING ALTERNATIVES

As provided in the public participation procedures of the State Air Pollution Control Board, the department included, in the Notice of Intended Regulatory Action, a description of the department's alternatives and a request for comments on other alternatives and the costs and benefits of the department's alternatives or any other alternatives that the commenters provided.

Accordingly, alternatives to the proposed regulation amendments were considered by the department. The department determined that the second alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulation. The alternatives considered by the department are discussed below.

1. Take no action to amend the regulations. This option was not chosen because the current regulations are unnecessarily burdensome to both the environmental community and the department staff without any commensurate advantage to the public.
2. Promulgate new regulations to replace the current ones. This option was chosen because of the need to better clarify the relationship between the state and federal HAPs programs.
3. Repeal the current regulations without replacement. This option was not chosen because regulations are necessary to protect public health while the federal mandates are being implemented.

GOALS

The specific and measurable goals the proposed regulation amendments are intended to achieve are as follows:

1. To reduce the regulatory burden on sources currently subject to both state and federal regulations by removing overlapping applicability.
2. To improve compliance by integrating the state program more logically and clearly with the federal Clean Air Act.

SUPPORT DOCUMENT FOR PROPOSED REGULATION REVISION G97 CONCERNING

HAZARDOUS POLLUTANTS

SUMMARY OF PROPOSED AMENDMENTS

The regulation amendments concern provisions covering hazardous pollutants and are summarized below:

With certain exemptions, stationary sources which emit hazardous pollutants and which fall into specified applicability limits shall comply with the specified standard and shall employ a control strategy to achieve that standard. Unlike most other regulations, these contain no definitive emission limits in the emission standards themselves. These regulations do, however, provide significant ambient air concentration guidelines as a mechanism for the board to require the owner, on a case-by-case basis, to reduce emissions after analysis and review by the agency. Subject sources shall also observe the provisions governing the submittal of information, the determination of ambient air concentrations, the compliance options and schedules, and the public participation procedures.

STATEMENT OF LEGAL AUTHORITY

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses, and has not exceeded, its statutory authority to promulgate the proposed regulation amendments is attached.

STATEMENT OF PURPOSE, SUBSTANCE, ISSUES, BASIS, LOCALITIES AFFECTED AND IMPACT

- A. Purpose - The purpose of the regulations is to require the owner to limit source emissions of hazardous pollutants to a level that will not produce ambient air concentrations that may cause or contribute to the endangerment of human health. Unlike most other regulations, these contain no definitive emission limits in the emission standards themselves. These regulations do, however, provide significant ambient air concentration guidelines as a mechanism for the board to require the owner, on a case-by-case basis, to reduce emissions after analysis and review by the agency. The proposal is being made to integrate the state hazardous pollutant program more logically with the federal Clean Air Act, according to a determination made pursuant to the review of existing regulations mandated by Executive Order 15(94).
- B. Substance - The major provisions of the proposal are summarized below:
1. With certain exceptions, the regulations apply to stationary sources throughout Virginia that emit or may emit hazardous pollutants at certain levels (9 VAC 5-60-150; 9 VAC 5-60-250).
 2. Terms essential to the regulations are defined (9 VAC 5-60-160; 9 VAC 5-60-260).
 3. Sources shall meet specified standards which (i) prohibit the discharge of hazardous pollutants in such quantities as to cause or contribute to the endangerment of human health and (ii)

mandate the use of control strategies for the control of hazardous pollutants (9 VAC 5-60-170; 9 VAC 5-60-270).

4. Case-by-case decisions of the board shall take into consideration specified significant ambient air concentrations (9 VAC 5-60-180; 9 VAC 5-60-280).
 5. The owner of a subject source shall submit information as required for the board to determine the applicability of or compliance with the regulations (9 VAC 5-60-190; 9 VAC 5-60-290).
 6. The owner shall provide an assessment as to whether his facility emits or may emit any hazardous pollutant in such quantities as to cause or contribute to and exceedance of any significant ambient air concentration. Ambient air concentrations shall be determined using modeling based on emission rates equal to the source's potential to emit for the applicable averaging time (9 VAC 5-60-200; 9 VAC 5-60-300).
 7. If the board believes that the emissions from a source may be discharged in such quantities so as to cause or contribute to any ambient air concentration that (i) is in excess of any significant ambient air concentration or (ii) has the potential to cause or contribute to substantial and imminent endangerment of human health, the owner shall choose one or more of the specified compliance options and shall abide by with their associated schedules. In the case of new source, a permit shall not be issued until the owner either (i) demonstrates that the emissions will not cause or contribute to and exceedance of a significant ambient air concentration, (ii) demonstrates that applicable significant ambient air concentration is inappropriate for the pollutant in question, or (iii) controls the emissions to a level resulting in ambient air concentrations that are below the significant ambient air concentrations (9 VAC 5-60-210; 9 VAC 5-60-310).
 8. If the owner of an affected facility chooses to demonstrate that the emissions from his source do not and will not cause or contribute to an exceedance of the significant ambient air concentration, this demonstration shall be subject to a public comment period of at least thirty days. The public shall be notified of the opportunity to comment on the information available for public inspection. This information shall include a brief description of the pollutants of concern and their possible health impacts, the source's demonstration, a statement listing the pertinent regulatory requirements, and the name and telephone number of a department staff person. In conjunction with the public comment period, the board will also receive written requests for a public hearing to consider the source's demonstration. Within thirty days following the expiration of the public comment period, the board shall grant a public hearing if it finds that there is significant public interest or that there are substantial issues in dispute (9 VAC 5-60-220; 9 VAC 5-60-320).
- C. Issues - The primary advantages of implementation and compliance with the regulation by the public and the department are discussed below. No disadvantages to either public or department are anticipated.
1. Public: Adoption of these regulations will benefit the public in several ways. Although the initial cost of compliance with the amended regulations will initially be the same as the cost of compliance with the current regulations, as more federal MACT standards are promulgated,

sources will be eliminated from applicability, thus reducing sources' compliance costs as well as the indirect costs to taxpayers. Furthermore, because the relationship between the state and federal programs has been clarified and because the two programs no longer overlap, the compliance burden on sources is reduced. Additionally, the environmental community will be assured that the state program will provide adequate protection for public health until the federal program is fully implemented.

2. Department: The primary advantage to the department will be the reduction of enforcement costs. Because the amended regulations are clearer and easier to comply with than the current regulations, and because the relationship between the state and federal programs has been clarified, sources will comply more readily. Thus, enforcement costs will be reduced, allowing the department to divert scarce resources to other areas.
- D. Basis - The legal basis for the proposed regulation amendments is the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia), specifically § 10.1-1308 which authorizes the Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.
- E. Economic Impact Analysis - The Department of Planning and Budget prepared an economic impact analysis for the proposal as required by § 9-6.14:7.1 G of the Administrative Process Act. This analysis states, "It is not unreasonable to conclude from this that the implementation of this proposal could increase risk from exposure to HAPs in some instances." The Department of Environmental Quality does not agree with this statement. DEQ anticipates no increase in risk from exposure to HAPs as a result of the implementation of the proposal. On the contrary, the eventual federal risk-based standards will be grounded in scientific evidence superior to that which was used to develop the original Virginia regulations and will therefore be more accurate. DEQ thus expects the risk from HAPs exposure to be decreased rather than increased.

Otherwise, the Department of Environmental Quality takes no issue with the economic impact analysis prepared by the Department of Planning and Budget.